



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ITA 11.0002X Issue No: 3 Certificate history:
Status: **Current** Page 1 of 4 Issue No. 3 (2016-06-24)
Date of Issue: **2016-06-24** Issue No. 2 (2013-10-18)
Applicant: **Weidmuller Pty Ltd** Issue No. 1 (2012-01-20)
43 Huntingwood Drive, Issue No. 0 (2011-02-18)
Huntingwood,
NSW 2148
Australia
Equipment: **ACT20X-HUI-SAO-LP-S Loop Powered Transmitter with universal inputs**
Optional accessory:
Type of Protection: **Ex nA [ia Ga] IIC T4 Gc, [Ex ia Ma Ga] I / IIC, [Ex ia Da] IIIC**
Marking: Ex nA [ia Ga] IIC T4 Gc, [Ex ia Ma Ga] I / IIC, [Ex ia Da] IIIC Tamb -20oC to +70oC

Approved for issue on behalf of the IECEx
Certification Body:

James Bes

Position:

Certification Authority

Signature:
(for printed version)

Date:

2016/06/24

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

TUV Rheinland Australia Pty. Ltd
1/30 Kennington Drive
Tomago NSW 2322
Australia





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Manufacturer: **Weidmuller Pty Ltd**
43 Huntingwood Drive,
Huntingwood,
NSW 2148
Australia

Additional Manufacturing
location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0
IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0
IEC 60079-15 : 2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[AU/ITA/ExTR15.0061/00](#)

Quality Assessment Report:

[AU/ITA/QAR07.0004/08](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The ACT20X-HUI-SAO-LP Loop Powered Transmitter with universal inputs is designed to provide a galvanically isolated power supply and restrict the transfer of energy from unspecified non-hazardous area equipment to the hazardous area circuits by limitation of voltage and current.

The equipment comprises of electronic components mounted on printed wiring boards all housed within a plastic enclosure. External connections are made via integral terminals mounted in the wall of the enclosure.

The equipment is designed as safe area apparatus for intrinsic safety equipment but also may be installed in zone 2 as Ex nA equipment provided it is installed within a suitably certified enclosure meeting IP 54 according to the certification conditions, listed on the attachment to this certificate as required by IEC 60079-15.

CONDITIONS OF CERTIFICATION: YES as shown below:

Refer to annex for additional detail.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Please refer to Annex

Annex:

[IECEX 11 0002X-3 - Certificate Annex.pdf](#)

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Additional Information concerning the Weidmuller ACT20X-HUI-SAO-LP-S Loop Powered Transmitter

(Description of the equipment, conditions of certification and drawings pertaining to earlier issues of this certificate have not been repeated in this document for the sake of brevity and clarity).

Variations covered by Issue 3 of this certificate:

Description:

Issue 3 covers the following;

1. Remove the obsolete standards IEC 61241-0 and 61241-11 and replace with IEC 60079-0 and IEC 60079-11.
2. Bring the certificate up to the current editions of the standards.
3. Changes relating to safety components.

Conditions of Safe use pertaining to Issue 3 of this Certificate:

1. Parameters to be observed

Terminals 41 & 42 and J7 (Programming interface)

$U_m = 250 \text{ V}$ (Used for Ex ia)

$U_n = 30 \text{ V}$ (Used for Ex nA)

Output Hazardous Area Connections Parameters

Terminal	U_o (V)	I_o (mA)	P_o (mW)	C_i (μF)	L_i (mH)
Terminal 21 wrt 12	5.88	9	13	0.001	Negligible
Terminal 22 wrt 12	5.88	0.003	< 1.0	0.001	Negligible
Terminal 11 wrt 12	5.88	79.2	116.4	0.001	Negligible
Terminal 21, 22 & 11 wrt 12	5.88	88.2	129	0.003	Negligible

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The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the hazardous area load connected to the hazardous area connections must not exceed the following values;

Model	Group I			Group IIA			Group IIB/IIIC			Group IIC		
	Co (uF)	Lo (mH)	L/R (uH/Ω)	Co (uF)	Lo (mH)	L/R (uH/Ω)	Co (uF)	Lo (mH)	L/R (uH/Ω)	Co (uF)	Lo (mH)	L/R (uH/Ω)
Terminal 21 wrt 12	1000	1000	2000	1000	1000	2000	1000	1000	2000	43	438	1900
Terminal 22 wrt 12	1000	1000	2000	1000	1000	2000	1000	1000	2000	43	1000	1900
Terminal 11 wrt 12	1000	74.3	3850	1000	45.3	2400	1000	22.6	1221	43	5.6	300
Terminal 21, 22 & 11 wrt 12	1000	60	3600	1000	36.5	2196	1000	18.2	1098	43	4.57	274

The above load parameters apply where;

- a. The external circuit contains no combined lumped inductance (L_i) or lumped capacitance (C_i) greater than 1% of the above values. OR
- b. The external circuit contains either only lumped inductance (L_i) or lumped capacitance (C_i) in combination with a cable. OR
- c. The inductance and capacitance are distributed as in a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the inductance and capacitance values are allowed.

2. When installed in a hazardous area the apparatus is to be mounted within a suitably certified enclosure that offers a degree of protection not less than IP54 and certified as an Ex e or Ex n enclosure.
3. Programming of the equipment is to be performed in the safe area only.

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Annexe



Annexe for Certificate No.:	IECEX ITA 11.0002X	Issue No.:	3
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Drawing list pertaining to Issue 3 of this Certificate:

Title:	Drawing No.:	Sheets	Rev. Level:	Date:
ACT20X-HUI-SAO-LP - O/P AND POWER CIRCUIT	31279S	Sheet 1 of 2	D	2015-07-17
ACT20X-HUI-SAO-LP - INPUT CIRCUIT	31279S	Sheet 2 of 2	B	2015-05-20
ACT20X-HUI-SAO-LP (ITX+ Exi)	31280S	Sheet 1 of 2	E	2015-11-26
ACT20X-HUI-SAO-LP (ITX+ Exi)	31280S	Sheet 2 of 2	E	2015-11-26
Transformer for ACT20X-HUI-SAO-LP	31281S	Sheet 1 of 1	A	2010-05-21
WEIDMULLER PTY LTD ACT20X HUI-SAO-LP-S GENERAL ARRANGEMENT DRAWING	31407S	Sheet 1 of 1	C	2011-11-23
ACT20X-HUI-SAO-LP-S CREEPAGE & CLEARANCE GENERAL ARRANGEMENT	31415S	Sheet 1 of 1	A	2010-12-15
ACT20X HUI-SAO-LP-S CRITICAL COMPONENTS	31416S	Sheet 1 of 1	I	2016-02-23
ACT20X-HUI-SAO-LP-S DRUCKVORLAGE PRINTING LAYOUT	4 58383	Sheet 02	5	2016-06-21